

ABSTRACT

5 A computer-implemented automated decision support system for
designing an auction for a given item includes a structure extractor that
estimates unknown elements of market structure of the auction based on
10 auction characteristics data extracted from historical auctions for similar
items and a bidding model matching the extracted auction characteristics
data. The decision support system also includes a bidding behavior predictor
that predicts bidding behaviors of bidders in the auction based on the
15 estimated unknown elements of market structure and characteristics of the
auction. In addition, the system includes an optimizer that employs an
evaluation criterion to generate an evaluation of the auction based on (1) the
estimated unknown elements of market structure and (2) the predicted
bidding behavior of bidders. A method of providing an automated auction
analysis is also described.